

Sports Medicine

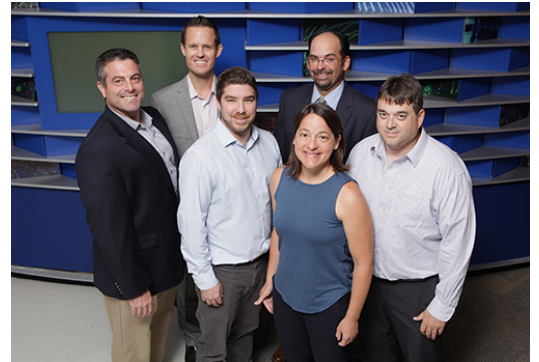
Division Details

RESEARCH AND TRAINING DETAILS

Faculty	7
Research Fellows and Post Docs	2
Total Annual Grant Award Dollars	\$769,806
Total Annual Industry Award Dollars	\$328,336

CLINICAL ACTIVITIES AND TRAINING

Clinical Fellows	2
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Row 1: G Myer, A Kiefer, K Berz, P Gubanich

Row 2: G Walker, M Paterno

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Division Highlights

Significant Funding in 2017

In FY 17, the division received the following funding:

- CCTST Community Health Grant “Promoting FOsTer Sport Team Program (FOoTSTEP)” (\$14,710.00)
- Cincinnati Children's Hospital GAP Award Funding AMSSM-ACSM Clinical Research Grant “The Pediatric Exercise Vital Sign: Screening Children for Exercise Deficit Disorder” (\$20,000.00)
- Cincinnati Children's Hospital Research Innovation Funding (IA# 31-41165-587000) “Prospective Model of Brain Plasticity Associated with Musculoskeletal Trauma and Sensorimotor Training” (\$60,481.00)
- National Institutes of Health (NIH) (U01 AR067997-01A1) “Real-time Sensorimotor Feedback for Injury Prevention Assessed in Virtual Reality” (\$2,459,667.00)
- [AMSSM Humanitarian Project Grant](#) “Sideline Survival Course” (\$2,000.00)
- National Institutes of Health (U01 AR070474) “Multi-site randomized clinical trial of FIT Teens for juvenile fibromyalgia” (\$7,544,427.00)
- Cincinnati Children's Hospital (Ohio EMS) “Motion capture to determine critical biomechanics of laryngoscopy and tracheal intubation” (\$78,552.00)
- [NFL Club Matching Certified Athletic Trainer Grant](#) “NFL Foundation ATC Outreach Grant” (\$25,000.00)

Division Publications

1. Myer GD; Schneider DK; Khoury J. **Correct Data and Meta-analytic Approaches Show the Reduced Risk of Concussion for Athletes Playing at Higher Altitudes.** *JAMA Neurology.* 2017; 74:484-485.
2. Grooms DR; Myer GD. **Upgraded hardware - What about the software? Brain updates for return to play following ACL reconstruction.** *British journal of sports medicine.* 2017; 51:418-419.
3. LaBella CR; Myer GD. **Youth sports injury prevention: keep calm and play on.** *British journal of sports medicine.* 2017; 51:bjsports-2016-096648.
4. Myer GD; Yuan W; Foss KDB; Thomas S; Smith D; Leach J; Kiefer AW; Dicesare C; Adams J; Gubanich PJ. **Analysis of head impact exposure and brain microstructure response in a season-long application of a jugular vein compression collar: a prospective, neuroimaging investigation in American football.** *British journal of sports medicine.* 2016; 50:1276-1285.
5. Sugimoto D; Myer GD; Foss KDB; Pepin MJ; Micheli LJ; Hewett TE. **Critical components of neuromuscular training to reduce ACL injury risk in female athletes: meta-regression analysis.** *British journal of sports medicine.* 2016; 50:1259-1266.
6. Read PJ; Oliver JL; De Ste Croix MBA; Myer GD; Lloyd RS. **Neuromuscular Risk Factors for Knee and Ankle Ligament Injuries in Male Youth Soccer Players.** *Sports Medicine.* 2016; 46:1059-1066.
7. Wall EJ; Milewski MD; Carey JL; Shea KG; Ganley TJ; Polousky JD; Grimm NL; Eismann EA; Jr JJC; Murnaghan L. **The Reliability of Assessing Radiographic Healing of Osteochondritis Dissecans of the Knee.** *American Journal of Sports Medicine.* 2017; 45:1370-1375.
8. Hewett TE; Ford KR; Xu YY; Khoury J; Myer GD. **Utilization of ACL Injury Biomechanical and Neuromuscular Risk Profile Analysis to Determine the Effectiveness of Neuromuscular Training.** *American Journal of Sports Medicine.* 2016; 44:3146-3151.
9. Schneider DK; Grawe B; Magnussen RA; Ceasar A; Parikh SN; Wall EJ; Colosimo AJ; Kaeding CC; Myer GD. **Outcomes After Isolated Medial Patellofemoral Ligament Reconstruction for the Treatment of Recurrent Lateral Patellar Dislocations A Systematic Review and Meta-analysis.** *American Journal of Sports Medicine.* 2016; 44:2993-3005.
10. Wiggins AJ; Grandhi RK; Schneider DK; Stanfield D; Webster KE; Myer GD. **Risk of Secondary Injury in Younger Athletes After Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-analysis.** *American Journal of Sports Medicine.* 2016; 44:1861-1876.
11. Bates NA; Nesbitt RJ; Shearn JT; Myer GD; Hewett TE. **Posterior Tibial Slope Angle Correlates With Peak Sagittal and Frontal Plane Knee Joint Loading During Robotic Simulations of Athletic Tasks.** *American Journal of Sports Medicine.* 2016; 44:1762-1770.
12. Carey JL; Wall EJ; Grimm NL; Ganley TJ; Edmonds EW; Anderson AF; Polousky J; Murnaghan ML; Nissen CW; Weiss J. **Novel Arthroscopic Classification of Osteochondritis Dissecans of the Knee: A Multicenter Reliability Study.** *American Journal of Sports Medicine.* 2016; 44:1694-1698.
13. Rhine T; Quatman-Yates C; Clark RA. **A Longitudinal Examination of Postural Impairments in Children With Mild Traumatic Brain Injury: Implications for Acute Testing.** *Journal of Head Trauma Rehabilitation.* 2017; 32:E18-E23.
14. Kurowski BG; Hugentobler J; Quatman-Yates C; Taylor J; Gubanich PJ; Altaye M; Wade SL. **Aerobic Exercise for Adolescents With Prolonged Symptoms After Mild Traumatic Brain Injury: An Exploratory Randomized Clinical Trial.** *Journal of Head Trauma Rehabilitation.* 2017; 32:79-89.
15. Tran ST; Guite JW; Pantaleao A; Pfeiffer M; Myer GD; Sil S; Thomas SM; Ting TV; Williams SE; Edelheit B. **Preliminary Outcomes of a Cross-Site Cognitive- Behavioral and Neuromuscular Integrative Training Intervention for Juvenile Fibromyalgia.** *Arthritis Care and Research.* 2017; 69:413-420.
16. Bates NA; McPherson AL; Rao MB; Myer GD; Hewett TE. **Characteristics of inpatient anterior cruciate ligament reconstructions and concomitant injuries.** *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016; 24:2778-2786.

17. Gokeler A; Bisschop M; Myer GD; Benjaminse A; Dijkstra PU; van Keeken HG; van Raay JJAM; Burgerhof JGM; Otten E. **Immersive virtual reality improves movement patterns in patients after ACL reconstruction: implications for enhanced criteria-based return-to-sport rehabilitation.** *Knee Surgery, Sports Traumatology, Arthroscopy.* 2016; 24:2280-2286.
18. Ittenbach RF; Huang G; Foss KDB; Hewett TE; Myer GD. **Reliability and Validity of the Anterior Knee Pain Scale: Applications for Use as an Epidemiologic Screener.** *PloS one.* 2016; 11:e0159204-e0159204.
19. DiCesare CA; Kiefer AW; Nalepka P; Myer GD. **Quantification and analysis of saccadic and smooth pursuit eye movements and fixations to detect oculomotor deficits.** *Behavior Research Methods.* 2017; 49:258-266.
20. Bailey DM; Clark JF; Myer GD; Fisher JA; Swenson ER; Stacey BS; Smith JA; Owens TS; Bailey DM. **Commentaries on Viewpoint: "Tighter fit" theory-physiologists explain why "higher altitude" and jugular occlusion are unlikely to reduce risks for sports concussion and brain injuries..** *Journal of applied physiology (Bethesda, Md. : 1985).* 2017; 122:218-220.
21. Clark JF; Myer GD. **EXPLANATION OF BRAIN PHYSIOLOGY TO ENHANCE UNDERSTANDING OF THE "TIGHTER FIT" THEORY.** *Journal of applied physiology (Bethesda, Md. : 1985).* 2017; 122:218-219.
22. Hewett TE; Myer GD; Ford KR; Paterno MV; Quatman CE. **Mechanisms, Prediction, and Prevention of ACL Injuries: Cut Risk With Three Sharpened and Validated Tools.** *Journal of Orthopaedic Research.* 2016; 34:1843-1855.
23. Strenk ML; Kiger M; Hawke JL; Mischnick A; Quatman-Yates C. **Implementation of a Quality Improvement Initiative: Improved Congenital Muscular Torticollis Outcomes in a Large Hospital Setting.** *Physical Therapy.* 2017; 97:649-658.
24. Quatman-Yates C; Cupp A; Gunsch C; Haley T; Vaculik S; Kujawa D. **Physical Rehabilitation Interventions for Post-mTBI Symptoms Lasting Greater Than 2 Weeks: Systematic Review.** *Physical Therapy.* 2016; 96:1753-1763.
25. Kiefer AW; Rio K; Bonneaud S; Walton A; Warren WH. **Quantifying and Modeling Coordination and Coherence in Pedestrian Groups.** *Frontiers in Psychology.* 2017; 8:949.

Grants, Contracts, and Industry Agreements

Annual Grant Award Dollars

Investigator	Title	Sponsor	ID	Dates	Amount
Gregory D Myer, PhD	Real-Time Sensorimotor Feedback for Injury Prevention Assessed in Virtual Reality	National Institutes of Health	U01 AR067997	08/01/2016 - 07/31/2021	\$698,292
Gregory D Myer, PhD	Multi-faceted Approach to Modeling ACL Injury Mechanisms	National Institutes of Health (Mayo Clinic)	R01 AR056259	09/01/2015 - 08/31/2018	\$40,840
Mark Paterno, PT	Real-time Optimized Biofeedback Utilizing Sport Techniques (ROBUST)	National Institutes of Health (High Point University)	R21 AR069873	04/01/2016 - 03/31/2019	\$30,674
Total Annual Grant Award Dollars					\$769,806

Annual Industry Award Dollars

Investigator	Industry Sponsor	Amount
Gregory D Myer, PhD	Q30 Labs, LLC	\$328,336
Total Annual Industry Award Dollars		\$328,336